

CLAIMS

What is claimed is:

1. A method for promoting self-burial of a conduit in the bottom of a water bed, comprising the steps of:

providing a first protruding part approximately over dead center along a first portion of said conduit, said first protruding part being securely connected to said conduit;

providing a second protruding part approximately 10° to 30° from over dead center on a second portion of said conduit different than said first portion, said second protruding part being securely connected to said conduit.

2. A method according to claim 1 further comprising the step of:

providing a third protruding part on said conduit approximately 10° to 30° from over dead center in an opposite circumferential direction from said second protruding part on a third portion of said conduit different than said first and second portions, said third protruding part being securely connected to said conduit.

3. A method according to claim 2 further comprising the step of:

providing a fourth protruding part approximately over dead center on a fourth portion of said conduit different than said first, second and third portions, said fourth protruding part being securely connected to said conduit.

4. A method according to claim 1 wherein said step of providing a second protruding part comprises securing said second protruding part to said conduit at a longitudinal distance along said conduit of at least four inches from said first protruding part.

5. A method according to claim 1 further wherein said first protruding part comprises a fin and means for permitting water flow through at least a portion of said fin.

6. A method according to claim 5 wherein said step of providing a second protruding part comprises securing said second protruding part to said conduit at a longitudinal position along said conduit approximately adjacent to a longitudinal position of first protruding part.

7. A method according to claim 1 wherein said step of providing a second protruding part comprises securing said second protruding part to said conduit at a

longitudinal distance along said conduit approximately four inches from said first protruding part.

8. A method according to claim 4 wherein said step of providing a third protruding part comprises securing said third protruding part to said conduit at a longitudinal distance along said conduit of at least four inches from said second protruding part.

9. A method according to claim 7 wherein said step of providing a second protruding part comprises securing said second protruding part to said conduit at a longitudinal distance along said conduit approximately four inches from said first protruding part.

10. A method according to claim 1 wherein said first and second protruding parts each comprises a fin.

11. A method according to claim 1 wherein said first and second protruding parts each comprises a spoiler assembly comprising a seat and a fin.

12. A method for providing stability for a conduit in the bottom of a water bed, comprising the steps of:

providing a first protruding part approximately over dead center along a first portion of said conduit, said first protruding part being securely connected to said conduit;

providing a second protruding part approximately 10° to 30° from over dead center on a second portion of said conduit different than said first portion, said second protruding part being securely connected to said conduit.

13. A method according to claim 12 wherein said providing stability for a conduit comprises at least one of:

stimulating self-burial of said conduit;

reducing vortex-induced vibration of said conduit; and

preventing upheaval buckling of said conduit.

14. A pipeline assembly comprising:

a length of pipe;

a first protruding part approximately over dead center along a first portion of said length of pipe, said first protruding part being securely connected to said length of pipe;

a second protruding part approximately 10° to 30° from over dead center on a second portion of said length of pipe different than said first portion, said second protruding part being securely connected to said length of pipe.

15. A pipeline assembly according to claim 14 further comprising:

a third protruding part on said length of pipe approximately 10° to 30° from over dead center in an opposite circumferential direction from said second protruding part on a third portion of said length of pipe different than said first and second portions, said third protruding part being securely connected to said length of pipe.

16. A pipeline assembly according to claim 15 further comprising:

a fourth protruding part approximately over dead center on a fourth portion of said length of pipe different than said first, second and third portions, said fourth protruding part being securely connected to said length of pipe.

17. A pipeline assembly according to claim 14 wherein said second protruding part is longitudinally spaced on said length of pipe approximately four inches from said first protruding part.

18. A pipeline assembly according to claim 14 wherein said length of pipe comprises a plurality of adjoining sections of pipe.

19. A submarine pipeline spoiler assembly comprising:

a fin; and

a seat, wherein said seat comprises a base having a concave portion for receiving a piggy-back pipe and having a plurality of grooves therein for receiving said fin, said grooves being radially spaced on said base.